

FIG. 1(a)

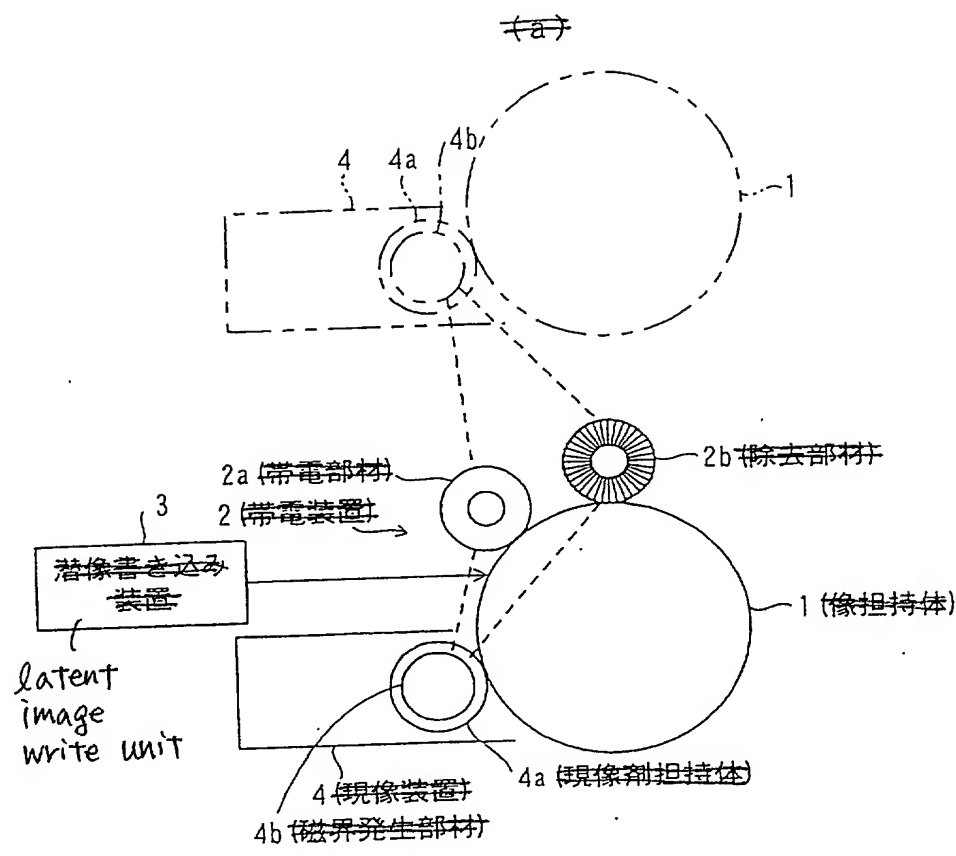


FIG. 1(b)

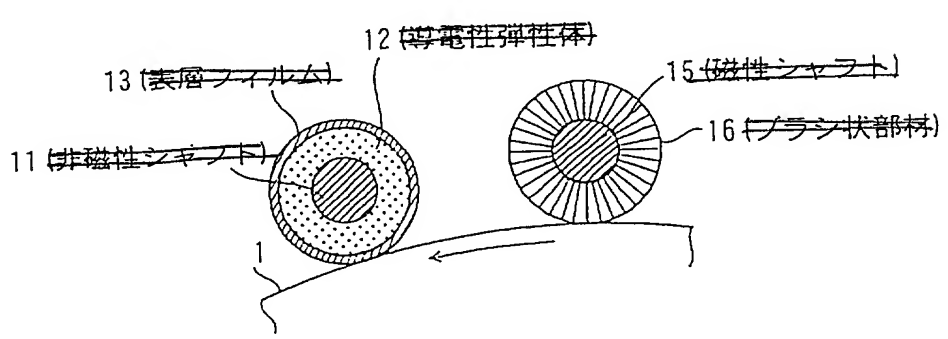


Fig. 2

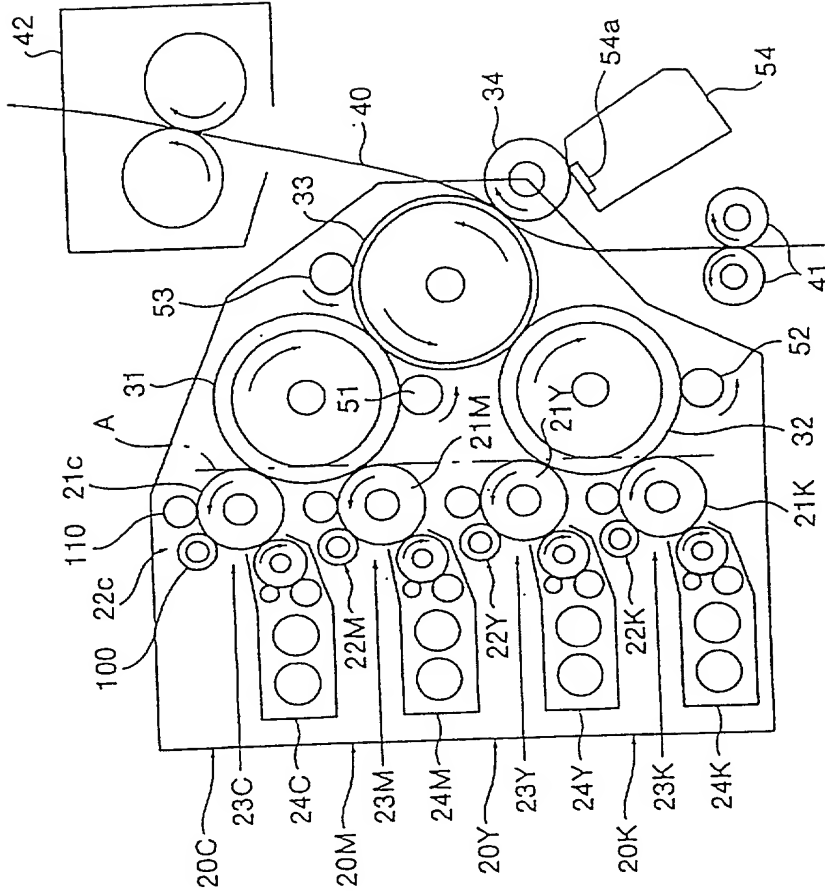


Fig. 3

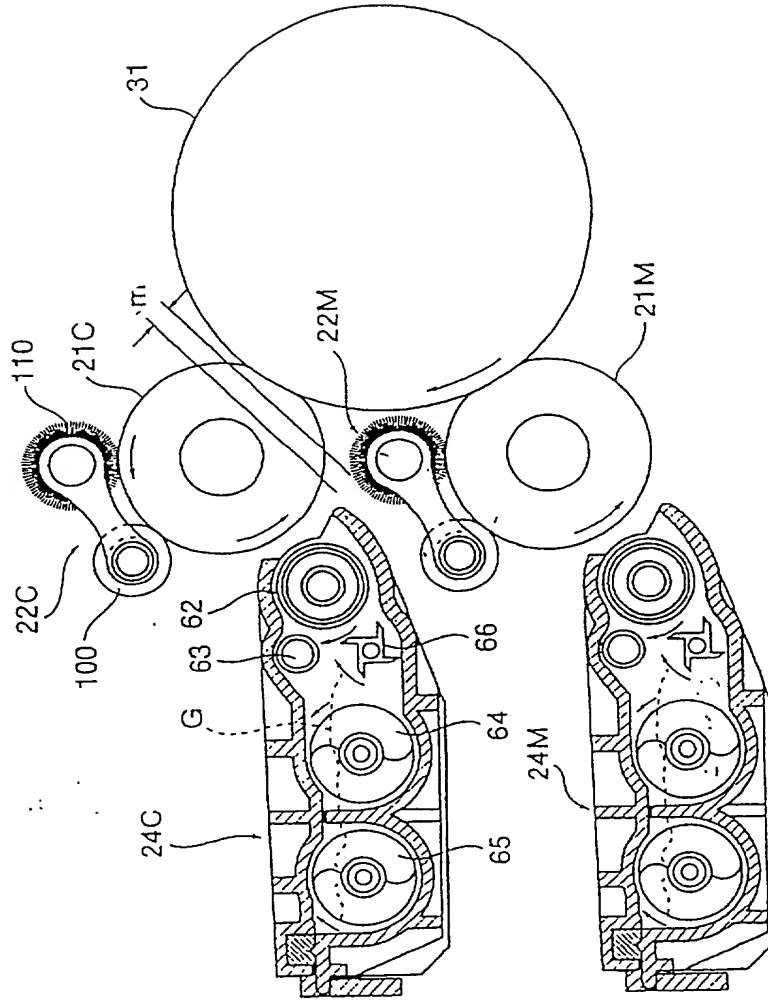
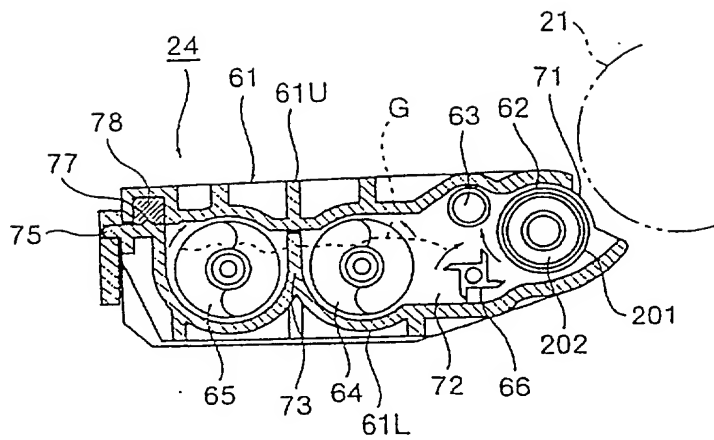


FIG. 4



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FIG. 5

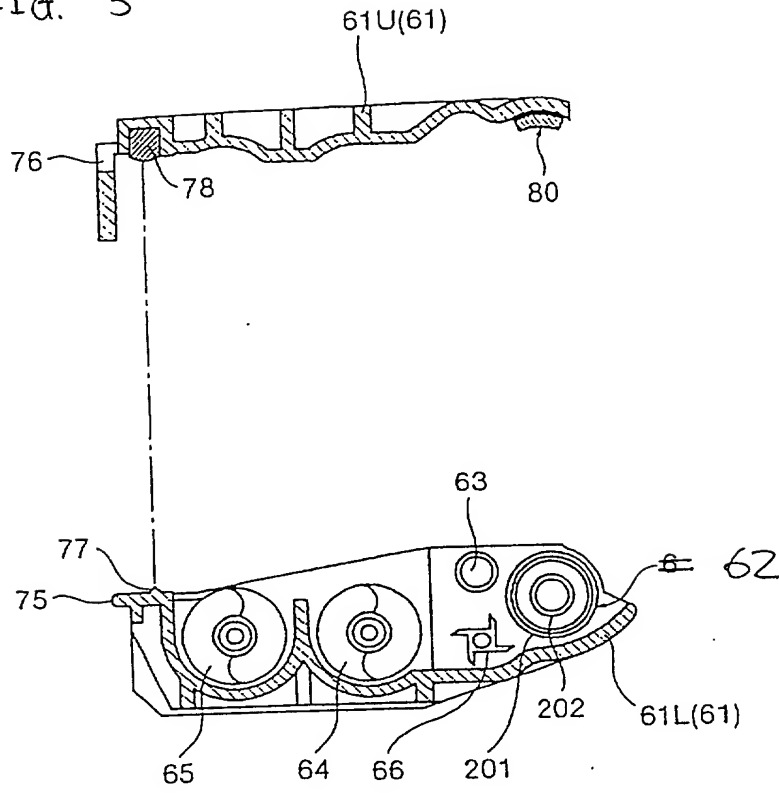


FIG. 6

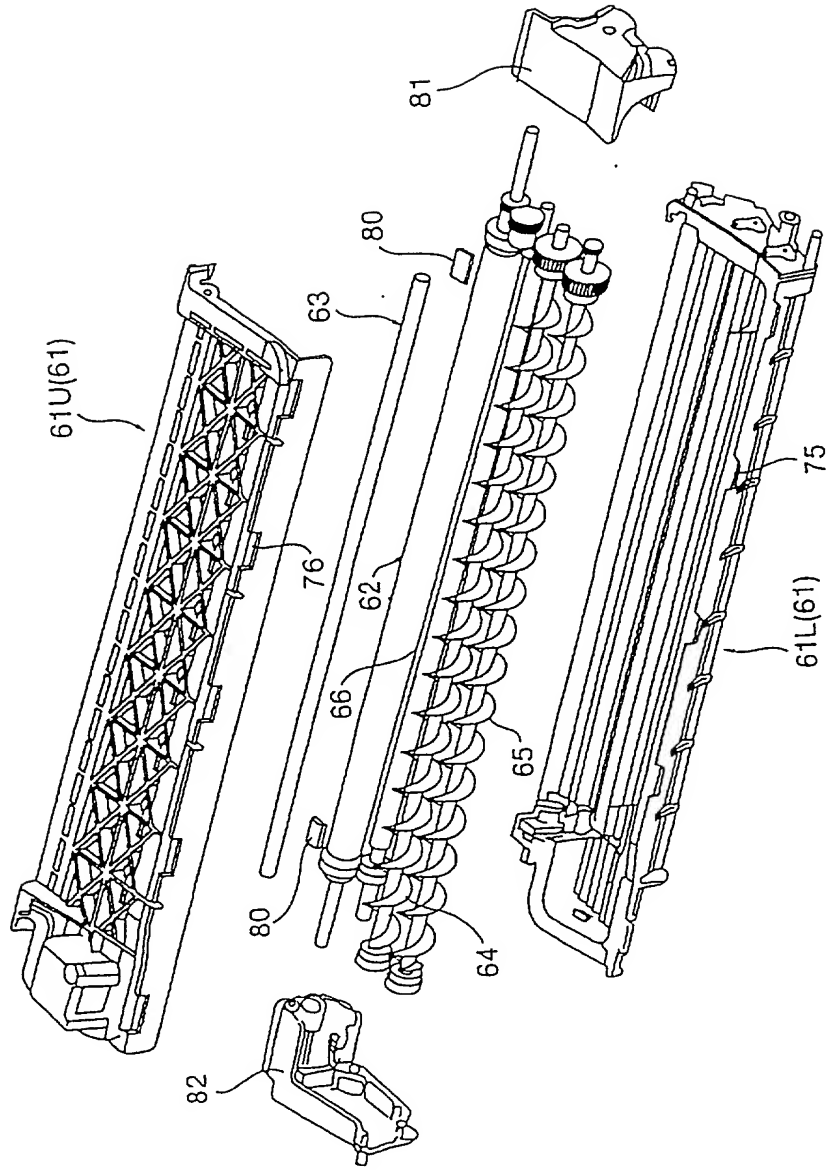
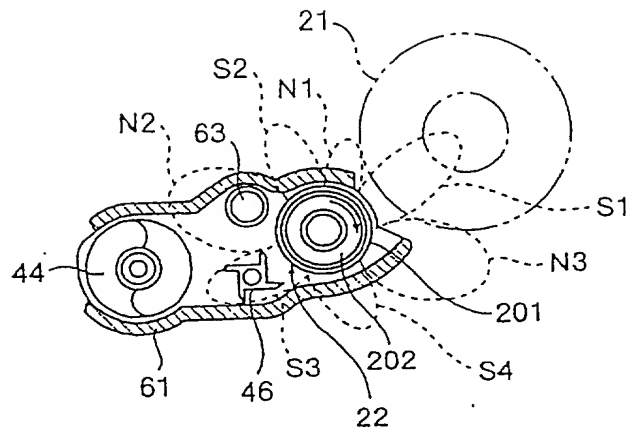


FIG. 7



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FIG. 8(a)

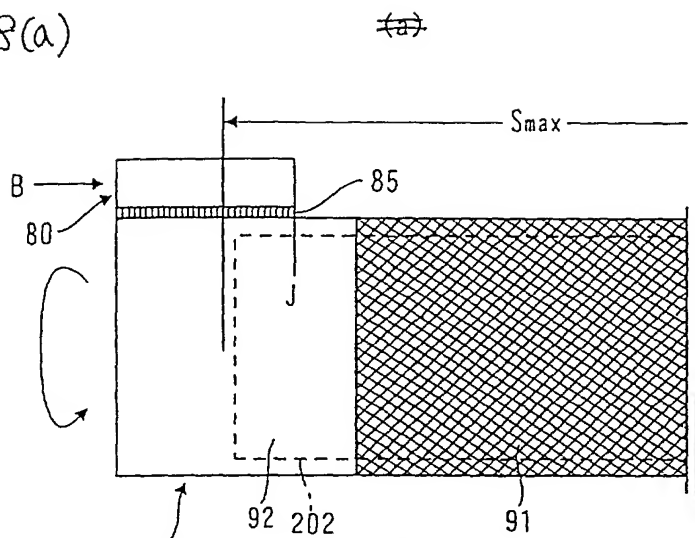
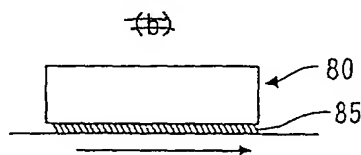


FIG 8(b)



~~FIG. 9(a)~~ FIG. 9(a)

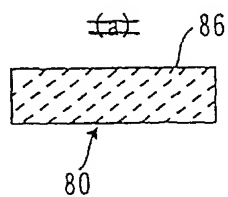


FIG. 9(b)

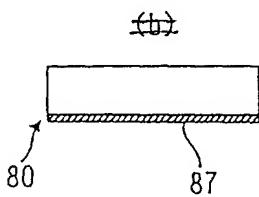
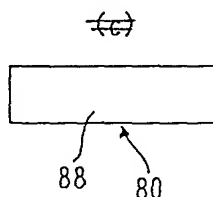


FIG. 9(c)



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FIG. 10(a)

(a) ~~実施の形態モデル~~

model according to first embodiment

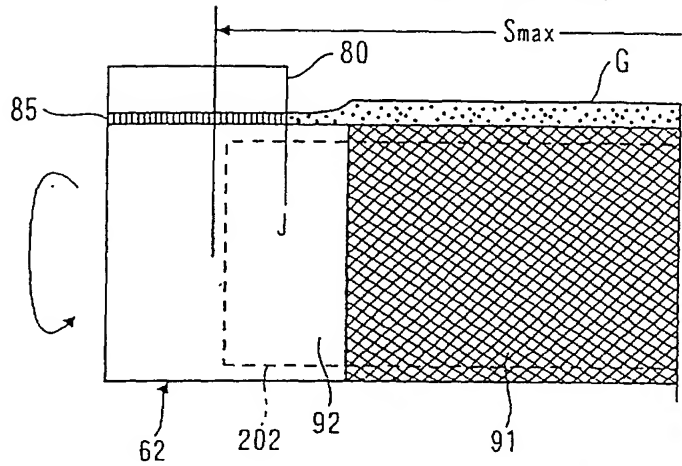
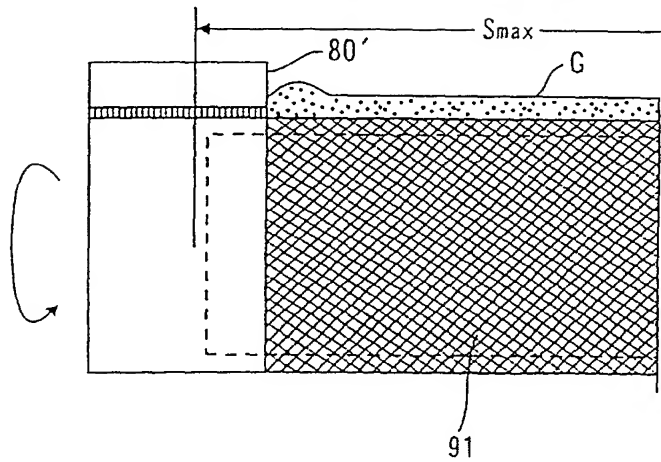


FIG. 10(b)

(b) ~~比較の形態モデル~~

comparative model



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FIG. 11(a)

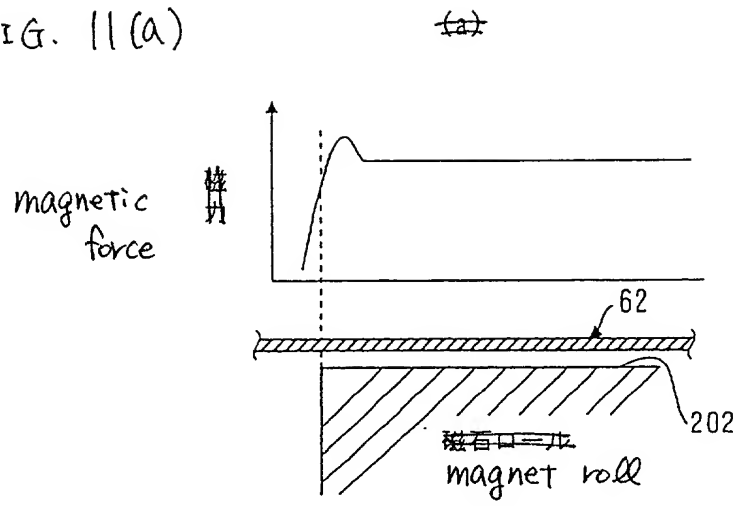
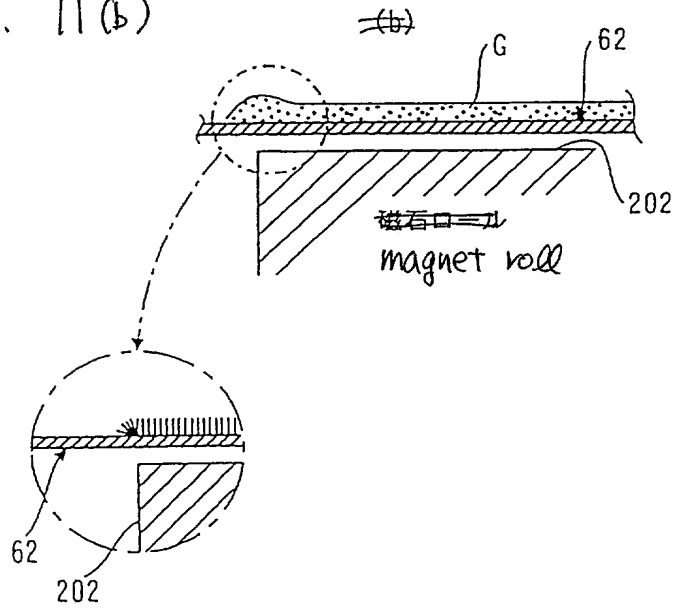


FIG. 11(b)



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FIG. 12 (a)

~~(a)~~

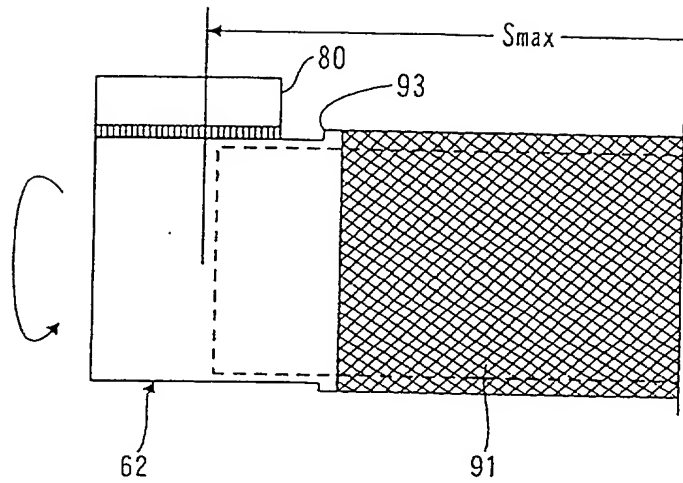


FIG. 12 (b)

~~(b)~~

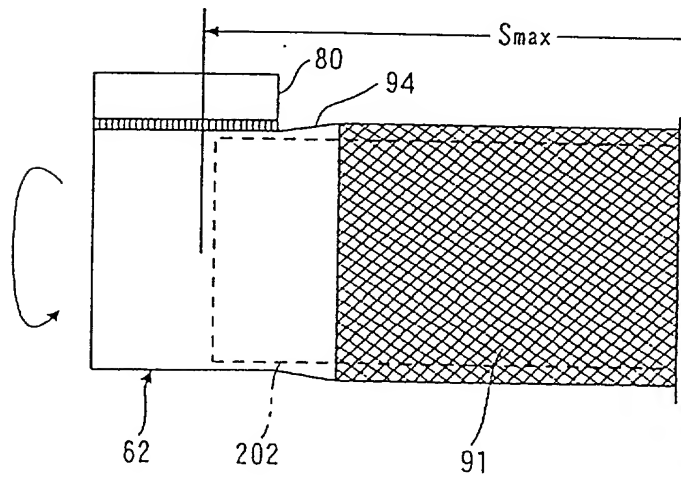


FIG. 13

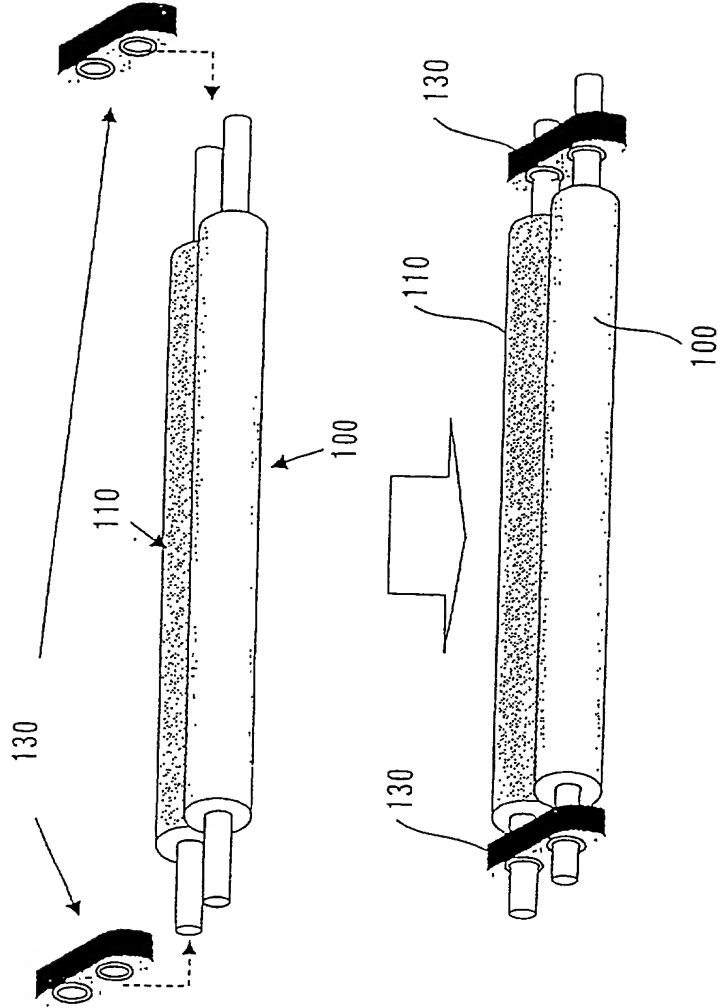


FIG. 14(a)

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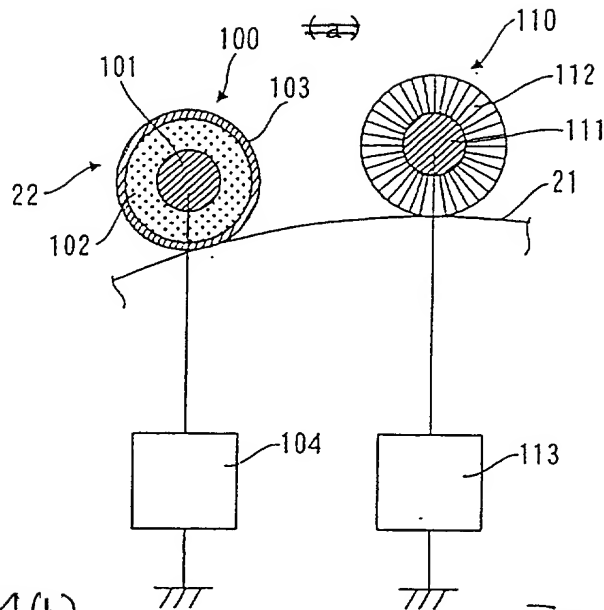


FIG. 14(b)

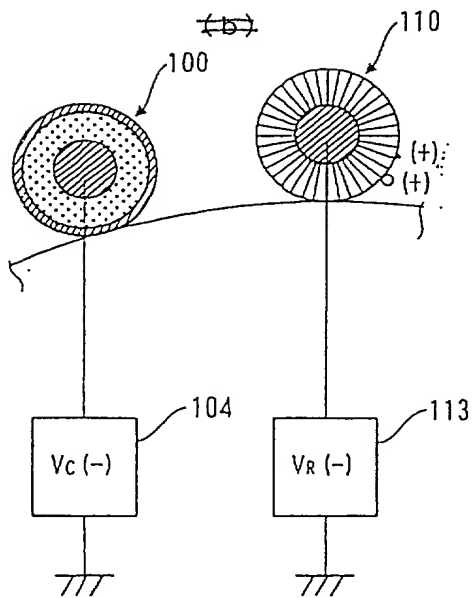


FIG. 14(c)

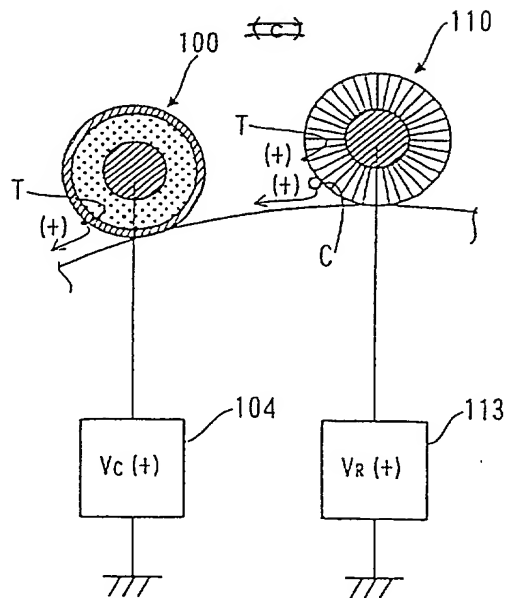


FIG. 15(a)

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end part spot caused by BCO/carrier scatter
●BCO/キャリア飛散による端部斑点

paper end part position

distance between paper end part and blast end part

		用紙 端部位置	用紙端部～ラスト端部 距離		
			3mm	4mm	5mm
(a) 薄層域規制 位置～ラスト 端部距離	0mm	x	○	△	△
	1mm	—	△	○	○
	2mm	—	△	○	○

distance between thin layer area regulation position and blast end part

FIG. 15(b) fogging at upper end part of photoconductor drum
●感光体ドラム上端部カブリ

paper end part position

		用紙 端部位置	用紙端部～ラスト端部 距離		
			3mm	4mm	5mm
(b) 薄層域規制 位置～ラスト 端部距離	0mm	x	△	△	△
	1mm	—	△	○	○
	2mm	—	○	○	○

※ラスト中シャットダウン時、テープ転写

FIG. 15(c) dirty level of driver gear in periphery of developing roll end part
●現像ロール端部周辺駆動ギア汚れレベル

paper end part position

		用紙 端部位置	用紙端部～ラスト端部 距離		
			3mm	4mm	5mm
(c) 薄層域規制 位置～ラスト 端部距離	0mm	x	△	○	○
	1mm	—	○	○	○
	2mm	—	○	○	○

shut down during print, tape transfer

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FIG. 16

charging shaft

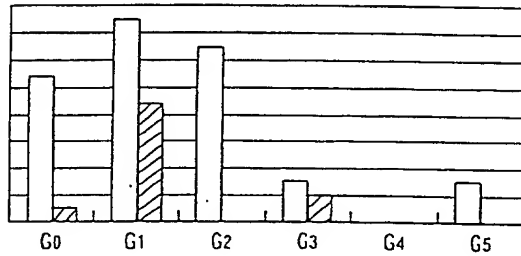
~~帯電シフト~~ : SUM

~~サフレスシフト~~ : SUM

refresher shaft

BKG斑点 spot

occurrence
ratio



independent
spots

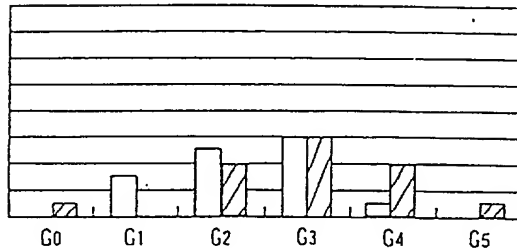
独立点

連続点

continuous
spots

IMG斑点 spot

occurrence
ratio



independent
spots

独立点

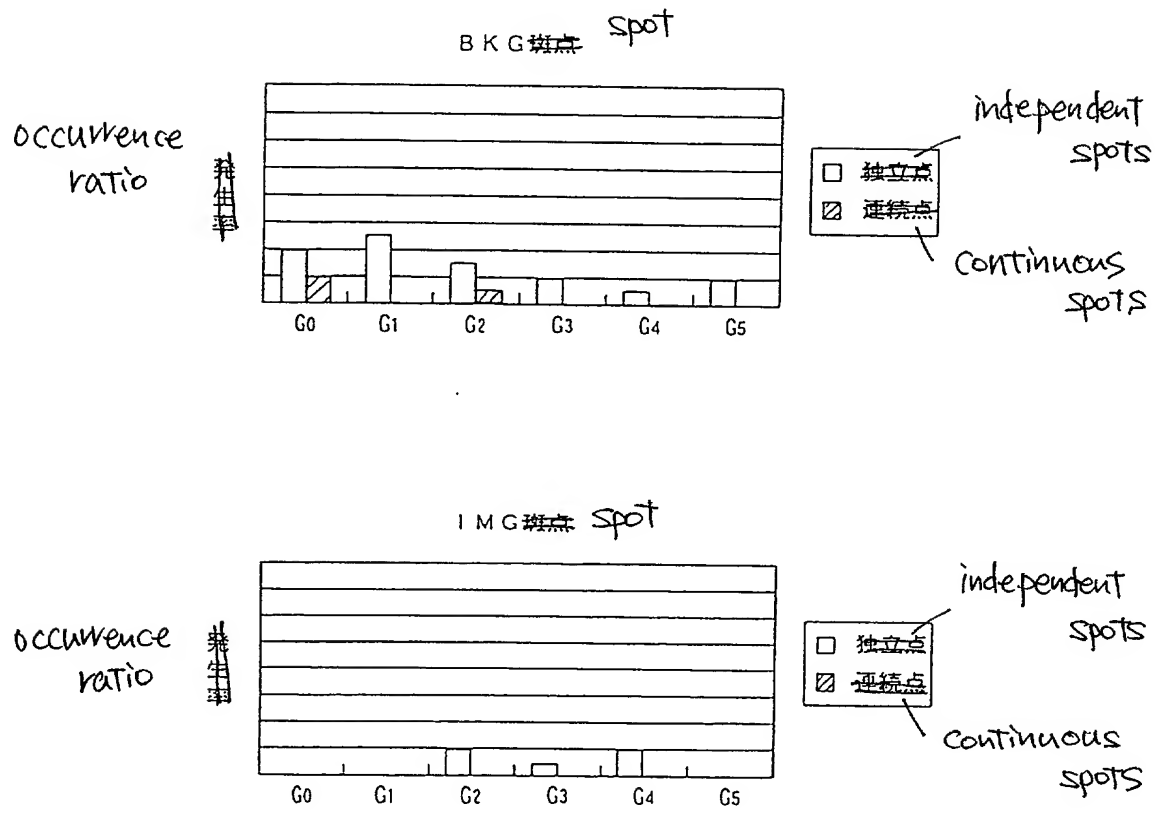
連続点

continuous
spots

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FIG. 17

charging shaft
~~帯電シャフト~~ : SUS303Cu
~~リフレッシュシャフト~~ : SUM
 refresher shaft



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Fig. 18 charging shaft
~~帯電シャフト~~: SUS303Cu
~~サラシツシャフト~~: SUS303Cu
 refresher shaft

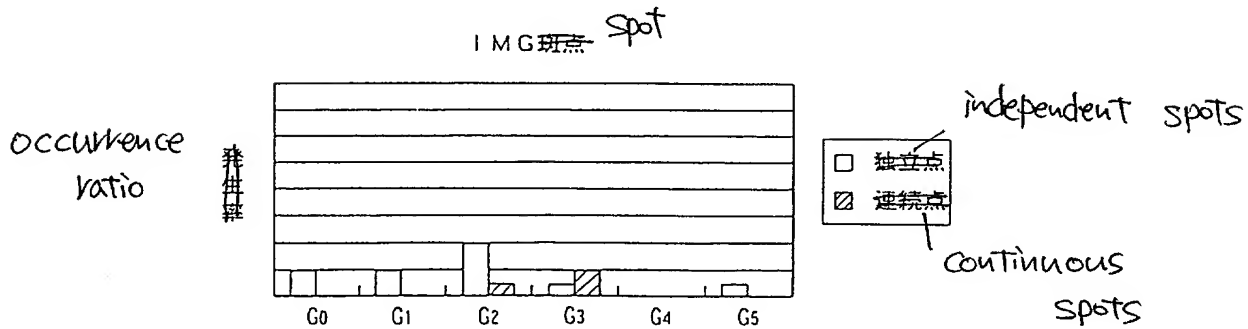
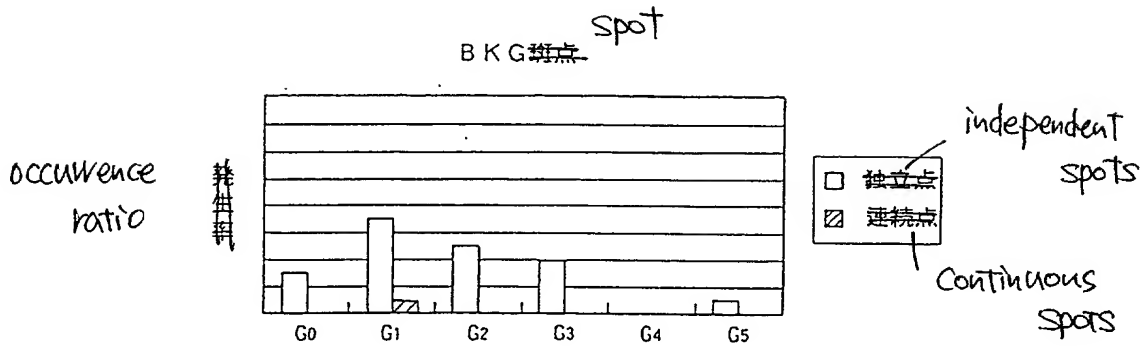
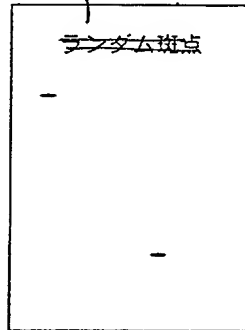


FIG. 19

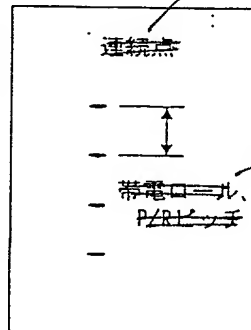
spot classification
by phenomenon

斑点現象別分類

random spots



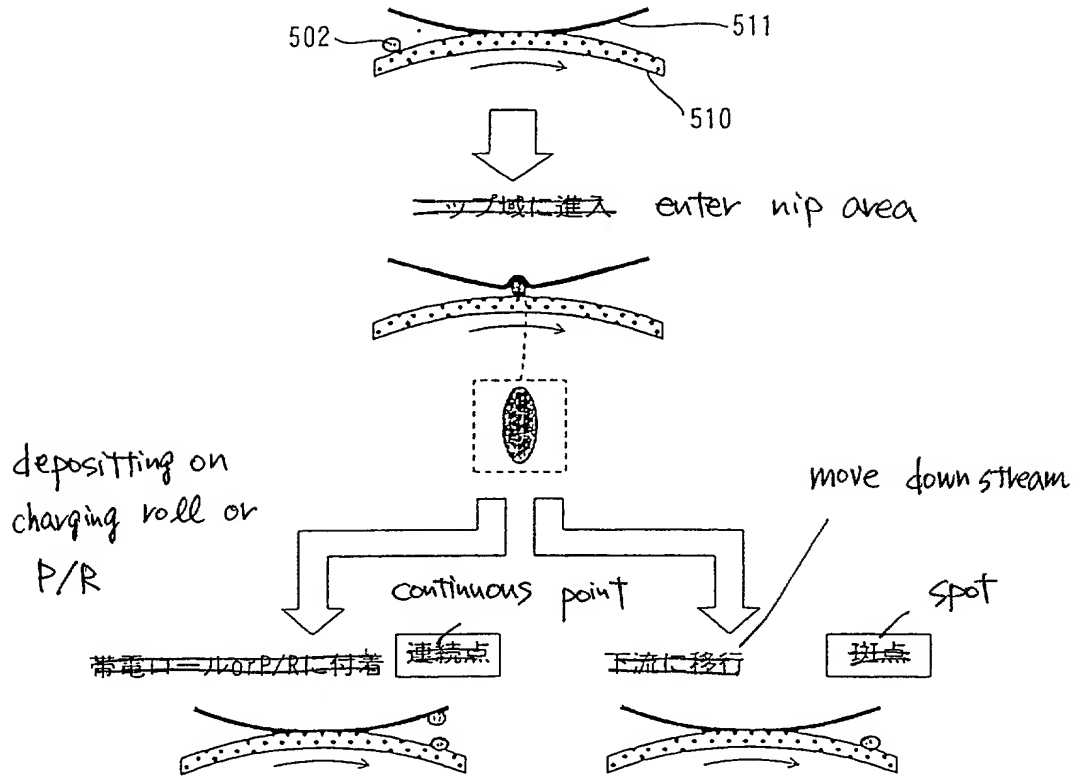
continuous points



charging roll,
P/R pitch

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FIG. 20



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~~図 21~~ Fig. 21(a)

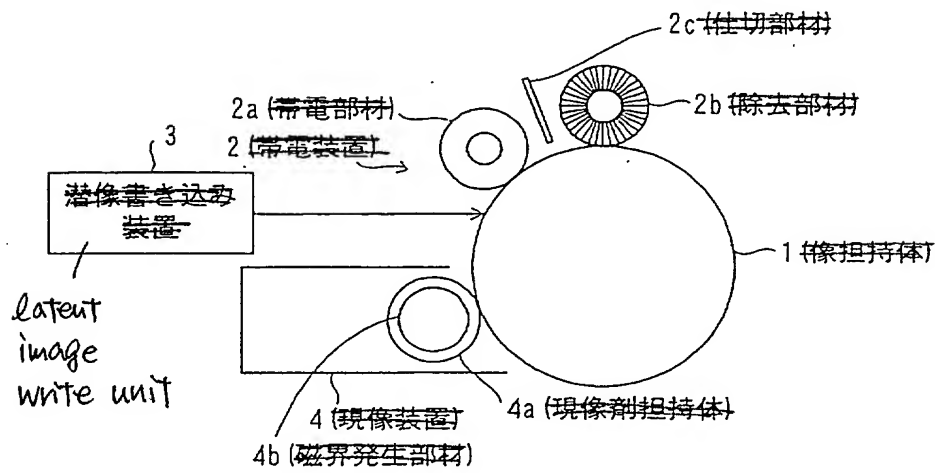
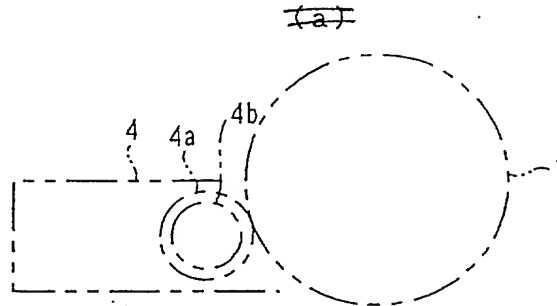


FIG. 21(b)

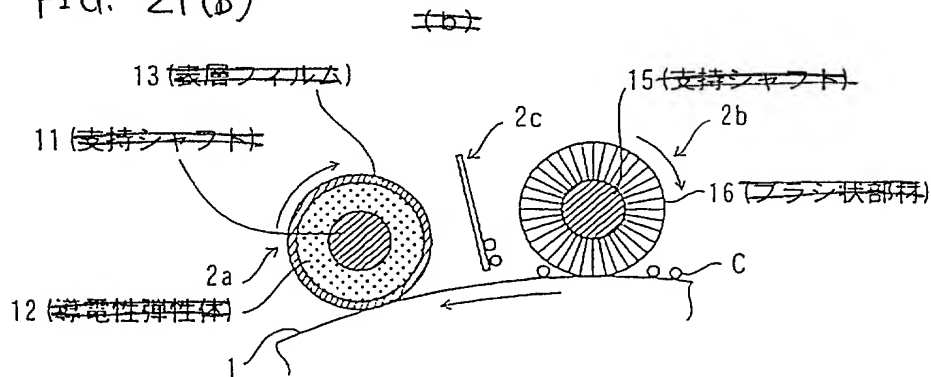


FIG. 22 (a)

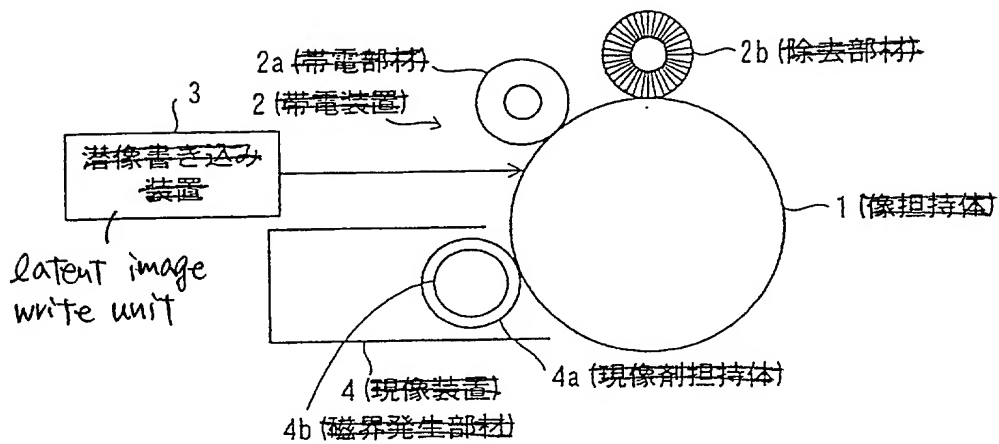
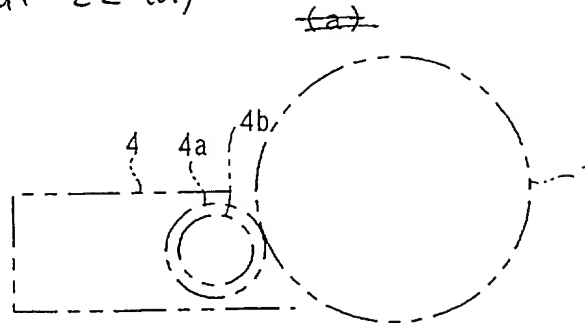
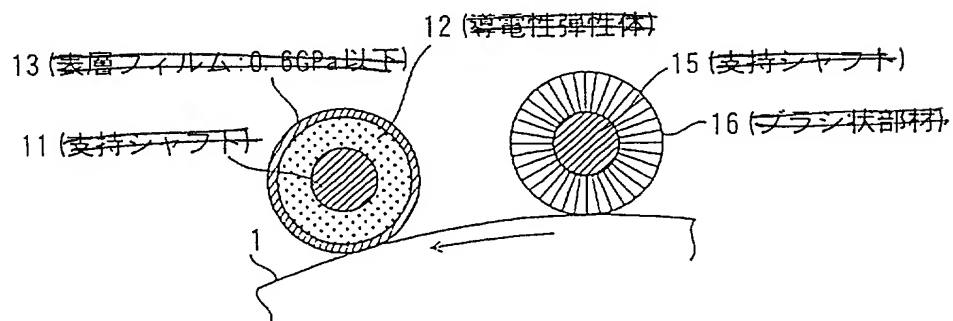


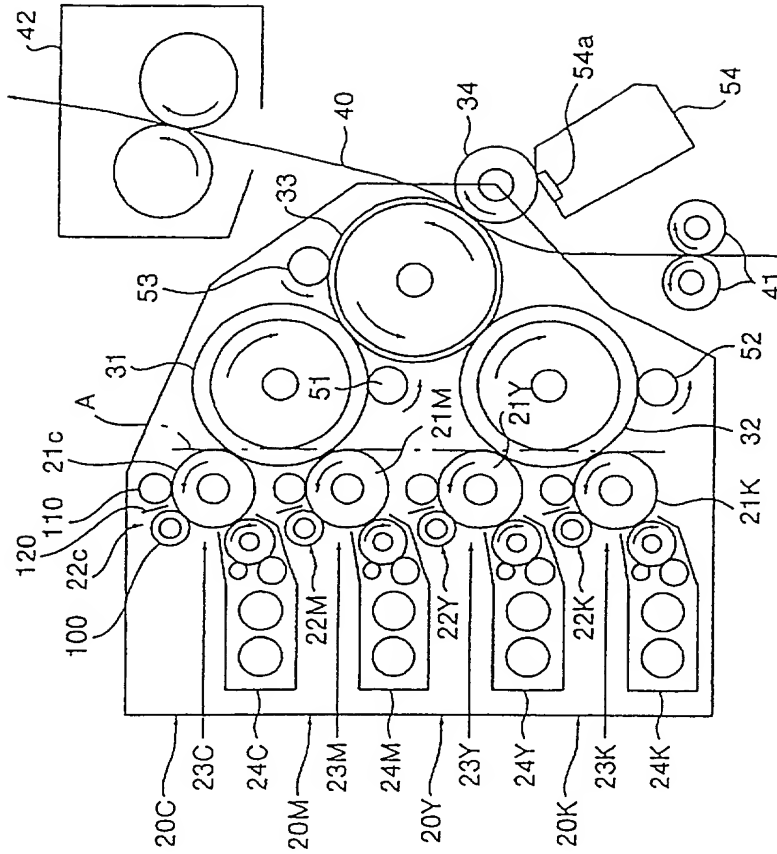
FIG. 22 (b)

(b)



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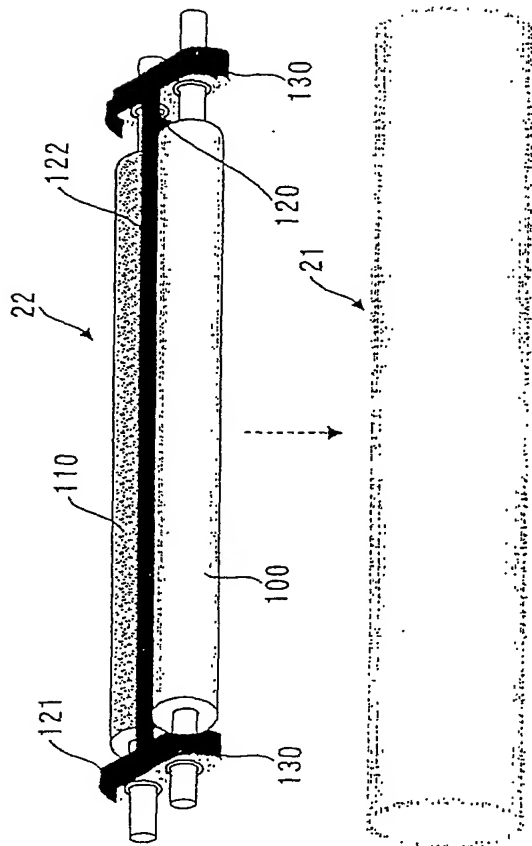
Fig. 23



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FIG. 24



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FIG. 25(a)

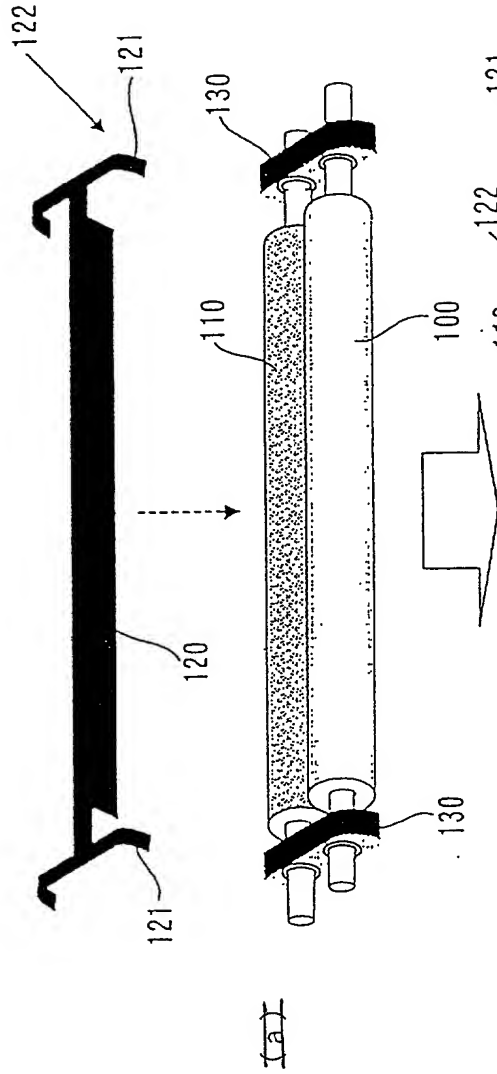
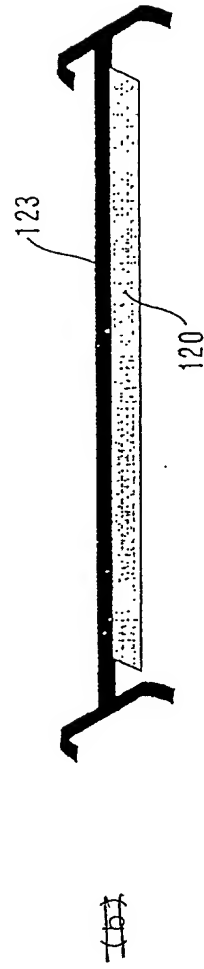


FIG. 25(b)



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FIG. 26(a)

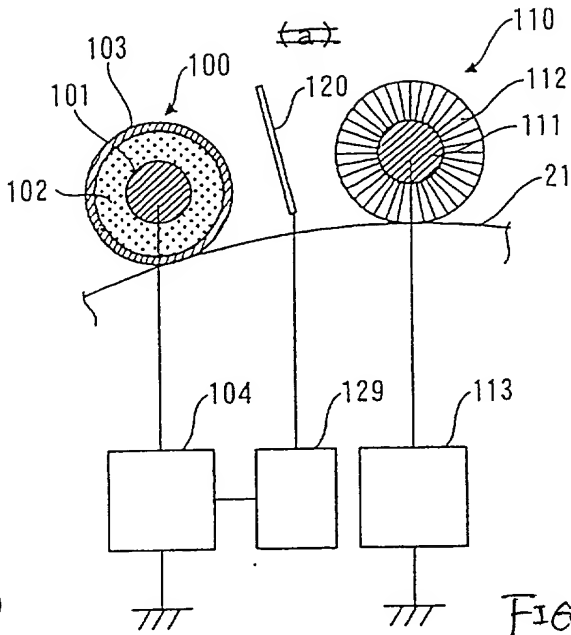


FIG. 26(b)

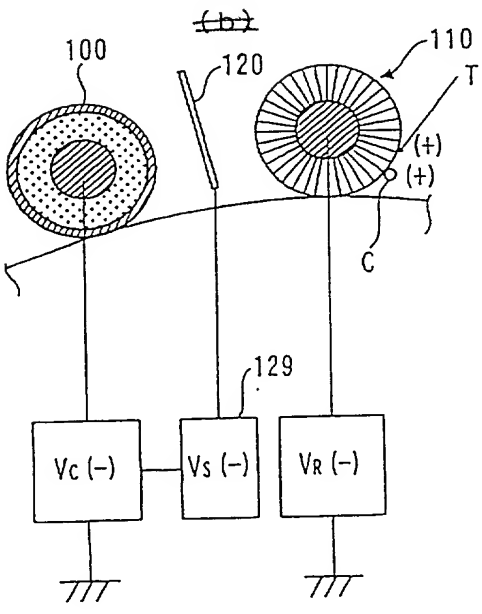
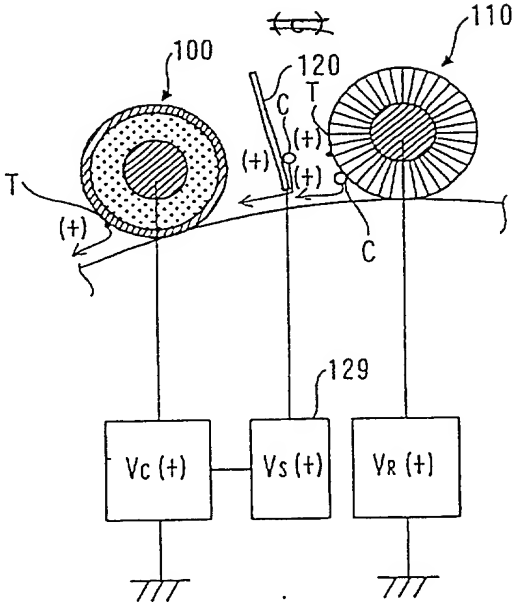


FIG. 26(c)



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FIG. 27(a)

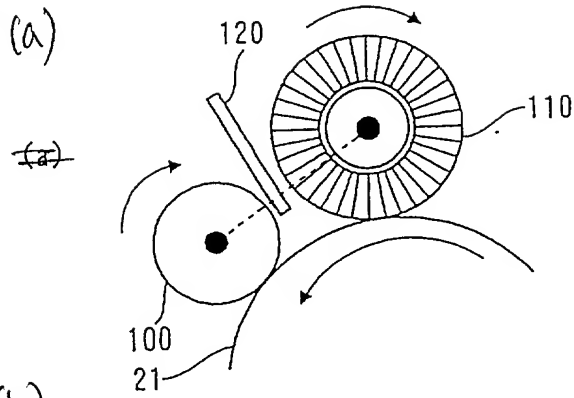


FIG. 27(b)

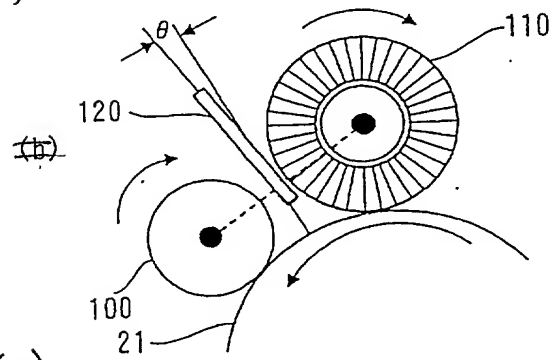
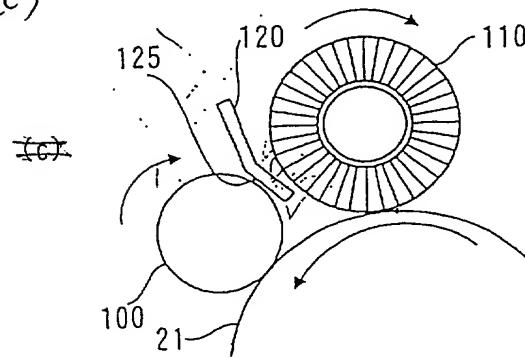


FIG. 27(c)



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FIG. 28(a)

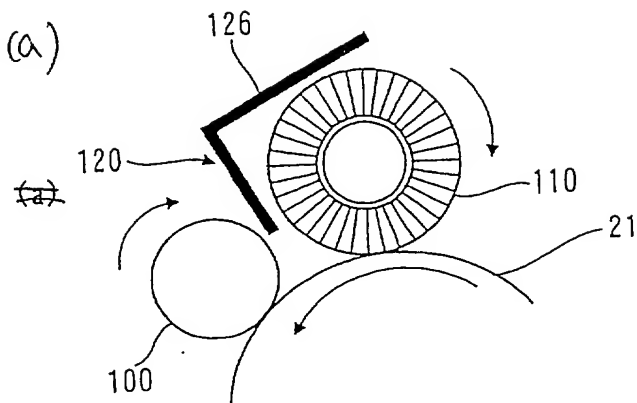


FIG. 28(b)

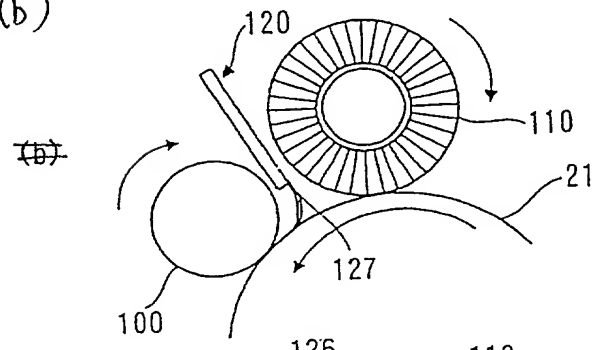
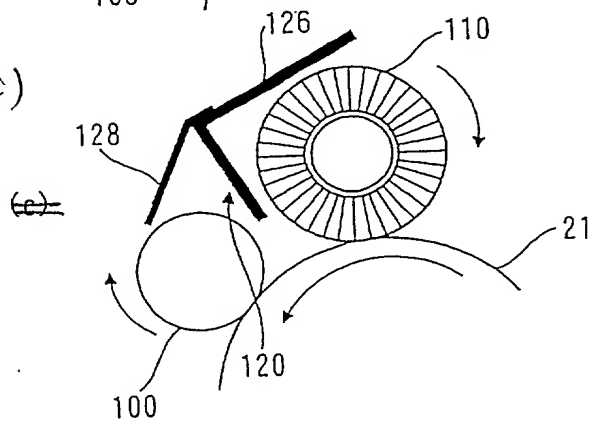


FIG. 28(c)



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FIG. 29(a)

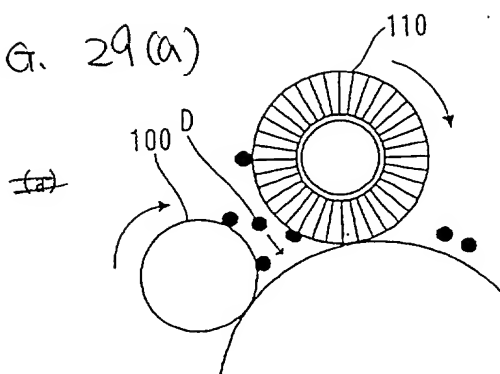


FIG. 29(b)

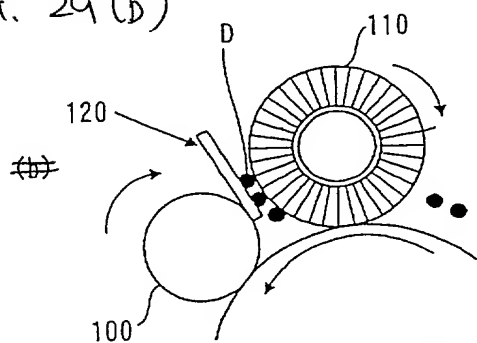
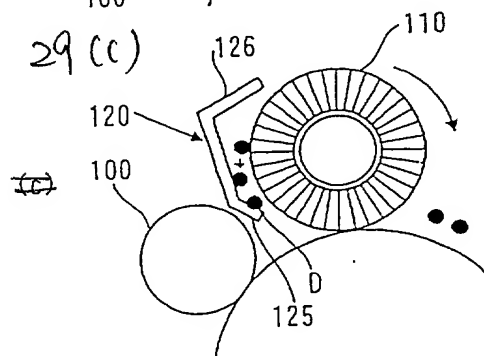
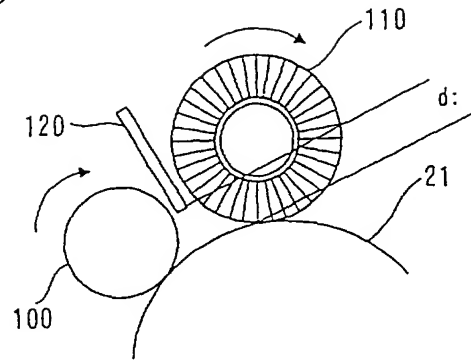


FIG. 29(c)



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FIG. 30



contact

d (mm)	斑点発生 有無
0 (接触)	○
0.5	○
1.0	○
2.0	○
3.0	○
4.0	×

occurrence of spot

FIG. 31

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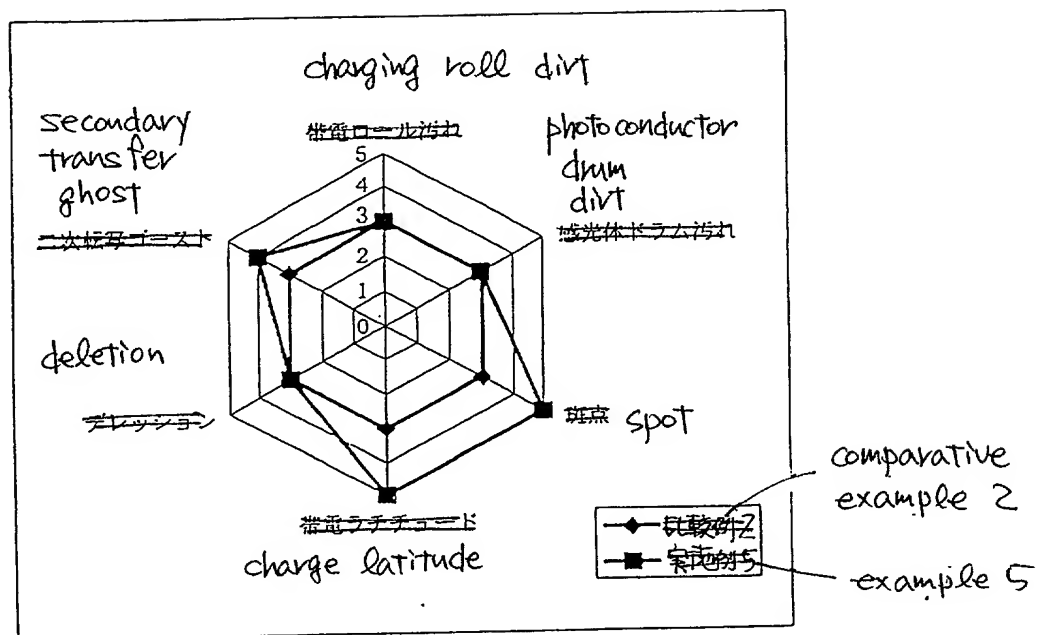


FIG. 32

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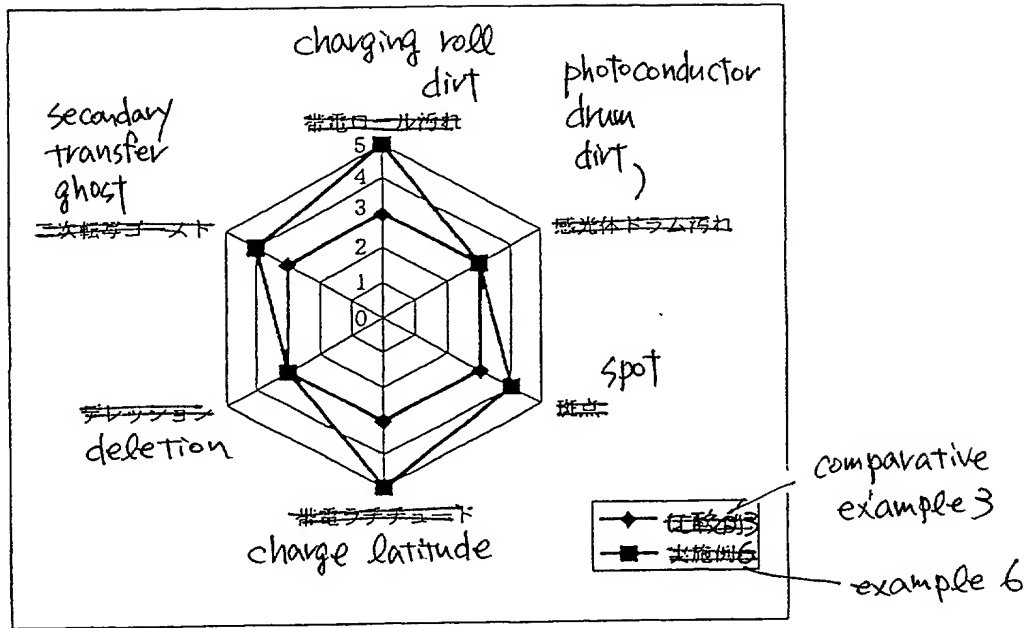


FIG.33

